

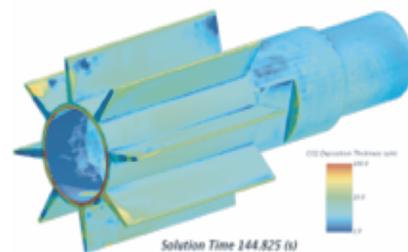


June 2020

Ames FY21 Center Innovation Fund (CIF) Request for Proposals (RFP)

The NASA Ames Office of the Center Chief Technologist (CCT) released the FY21 Center Innovation Fund (CIF) Request For Proposals (RFP). The purpose of the CIF is to stimulate and encourage creativity, innovation and collaboration within Ames, and between Ames and other NASA Centers in addressing the technology needs of NASA and the Nation. This advanced technology investment helps make Ames more competitive, provides opportunities for risk reduction and/or increased cost effectiveness, and initiates potentially transformational solutions to the most challenging mission-related problems. CIF focuses on technology investments that are longer-term, higher-risk, high-impact, and not necessarily tied to any specific future mission opportunity. The FY21 CIF award guideline is up to \$50K in procurement, and up to 0.2 FTE for one year. Proposals are open to any area of technical investment that meets the selection criteria. However, the following specific areas of investment are encouraged and given special consideration in the selection process: 1) Lunar surface technologies; 2) Digital transformation; and 3) Life detection and sterilization. Further information regarding the CIF Program, including the RFP, all supporting documents, and instructions for submittal can be found at: <http://www.nasa.gov/ames/cct/cif20>

All proposals and supporting material are due no later than **5:00 p.m. (PST), July 28, 2020.**



Results from Grace Belancik's FY18 CIF Award, "Developing Cryogenic Heat Exchangers for Selective Cabin Air Separation" showing CO2 ice thickness developing on a cold surface.

Ames FY21 Internal Research & Development (IRAD) Request for Proposals

The Ames Office of the Center Chief Technologist and the Ames Office of the Chief Scientist, in conjunction with the office of the Associate Center Director for Research and Technology, are pleased to announce the release of FY21 IRAD Request For Proposals. IRAD develops strategic technical capabilities in support of the Center competencies, and thereby enables science, technology, and engineering efforts for supporting future Agency missions. IRAD proposals may be for up to \$200K procurement and up to 0.2 FTE. Proposals are open to any area of technical investment relevant to NASA, but the Center encourages proposals in the following specific areas: 1) Advanced Air Mobility Research; 2) Lunar Exploration Science and Engineering; 3) Life Detection and Astrobiology Instrument Science; 4) Intelligent Systems for Aviation and Spacecraft Autonomy; 4) Aviation Management Testing of onsite UAV Systems; 5) Construction Management, Facility Safety, Configuration Management; and 6) USGS Technical Collaboration (joint). Further information regarding the IRAD, including the RFP, all supporting documents, and instructions for submittal can be found at: www.nasa.gov/ames/irad/21

All proposals and supporting material are due no later than **5:00 p.m. (PST), July 28, 2020.**



FY19 IRAD recipient, Mary Beth Wilhelm: "Novel Life Detection System Coupling Lipid Extraction with Raman Spectroscopy."

Ames Wins Three Proposals to Support Crew Health and Performance

NASA selected 21 proposals to help answer questions about astronaut health and performance during future long-duration missions beyond low-Earth orbit. The proposals will investigate biological, physiological, and behavioral adaptations during spaceflight in support of NASA's crewed Artemis missions to the Moon and future human exploration of Mars. Among the 21 studies, are three awards from Ames:

- **Sylvain Costes:** "Mapping Peripheral Immune Signatures of Mouse and Human Responses to Space Radiation for Biomarker Identification"
- **Jessica Koehne:** "Printed Electrochemical Sensor Strip for Quantifying Bone Density Loss in Microgravity"
- **Candice Tahimic:** "Cardiovascular Responses to Simulated Spaceflight: Molecular Signatures and Surrogate Outputs to Measure CVD Risk"

The 21 selected proposals will receive ~\$4.3M during a one- to two-year period. NASA selected the projects from 129 proposals received in response to the 2019 Human Exploration Research Opportunities Appendices A and B. The complete list of selected proposals, PI's and organizations can be found at:

<https://www.nasa.gov/feature/nasa-selects-proposals-to-study-adaptation-and-response-for-astronaut-missions-to-moon-mars>

NASA Announces
Challenge Seeking
Innovative Ideas to
Advance Missions.

NASA Entrepreneurs Challenge: Seeking Innovative Ideas to Advance Missions

NASA Science Mission Directorate (SMD) has opened a pilot Entrepreneurs Challenge to invite fresh ideas that support development of instruments and technologies to advance the agency's science exploration goals. SMD is seeking novel ideas reflective of those currently trending in the commercial sector – particularly in areas

such as machine learning, artificial intelligence, autonomy, robotics and advanced sensors. Awards are up to \$100,000 in a three-stage process: Stage 1 participants will submit white papers describing the capability being offered; Stage 2 is a live challenge event where 15-20 selectees from Stage 1 will be brought together in a forum to make oral presentations about their ideas for prize awards of \$20,000 each; and in Stage 3, the 10 finalist from Stage 2 will submit full descriptions of their technology ideas for as much as \$80,000 in additional prize. To learn more about the Entrepreneurs Challenge and to apply, go to: <https://www.nasa-science-challenge.com>

White paper submissions are due **June 26**, with the challenge forum to be held **July 29, 2020**.



NASA Digital Transformation Hackathon Challenge

Do you have an idea for how NASA's workplace, workforce, or work products can be improved using the latest digital tools and techniques? Through NASA@WORK, employees with a PIV badge can submit ideas for a Digital Transformation Hackathon (to be held on **September 11**). Hackathon participants will rapidly plan or prototype solutions to the selected challenge ideas. This activity aims to create an inviting forum to experience and grow a culture that supports digital effectiveness. Contact: Bryan Biegel, bryan.biegel@nasa.gov and learn more at: <https://nasa-at-work.nasa.gov>
The deadline to submit ideas is: **June 29, 2020**.



Call for NASA Digital
Transformation
Hackathon
Challenge